**Manchester Institute of Biotechnology – Risk Assessment**



| **Date:** 26/01/15 | **Assessed by**:  Rehana Sung | **Validated by**:  Tanya Aspinall | **Location**: MIB 1.050 |  | **Review date:**  25/01/16 |
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| **Task**  Use of the communal hydrogen gas cylinder in lab 1.050 | | | | | |

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| **Activity** | **Hazard** | **Person(s) in dange**r | **Existing measures to control risk** | **Risk rating** | **Result** |
| Use of hydrogen gas cylinder and regulator | Gas leakage  - Risk of fire/explosion  - risk of asphyxiation | Staff and others present in close proximity | All staff/students are trained (by STDU or supervisor/facility manager) in the safe use and handling of the hydrogen cylinder.  The training includes:   * Safe use of the gas regulator, including how to switch on/off, how to detect/react to problems, what to do in an emergency * How to record use of the cylinder   The cylinder is clearly labelled.  All users must record usage in the log book.  Written instructions are present next to the cylinder to remind users how to use the cylinder safely.  A database of gas regulators is kept and updated regularly in order to keep a record of maintenance checks.  No ignition sources (eg. Gas burners) are permitted to be used in lab 1.050.  All work must be conducted within the fume cupboard.  All solvents must be removed from the fume cupboard before the work begins.  A flashback arrestor is fitted downstream of the regulator.    Always open cylinder valves slowly to avoid damage to regulators/equipment. The cylinder valve must be closed when work is complete (even when cylinder is empty).  Avoid siting flammable gas cylinders between user and the means of escape from the laboratory.  Work in a well-ventilated area.  Any problems should be reported immediately to Rehana Sung and /or MIB Safety Office | High | A |

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| **Authorisation by Facility Manager**  **I confirm that I have considered and understand the experiment and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to acceptable levels.**  **Print name: Signed:**  **Date:** |

**Declaration by researcher**

**I confirm that I have read this Risk Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated. Where PPE has been identified as a control measure, I will ensure that it is worn.**

**Declaration by Facility ManagerI confirm that the researcher who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.**

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| **Name (please print)** | **signed** | **Facility Manager countersignature** | **date** |
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